**Science methods - ELED 4142 Assignment Descriptions**

* Interactive Notebook
* Science in a Bag/Box
* NSTA Learning Center
* Inquiry Project
* Paired Text Set
* 5E Lesson Plan & Demonstration Lesson
* Bottle Rocket Inquiry PBL
* Project CENTS workshop completion – PLT & WILD

|  |
| --- |
| Find out more at: <http://www.stemresources.com/> |

**Interactive Notebooks – 75 points**

You will need to maintain an interactive notebook (IN) for this course. You can use a graph-ruled journal for this purpose. You will make journal entries based on course readings outside of class and make entries during class as part of activities led by the instructor and/or other students within the class. Notebooks will be reviewed periodically and will be collected at the end of the semester for grading and then returned.

**Purpose:**

Prepare you for class discussions and provide you with a written record of class content to be used as a reference. The IN also allows you to be reflective and document your questions and they allow for individual creativity.

**Before class**

Complete the assigned graphic organizer(s) for the reading(s) of the day as well as reflective activities that were not completed in class.

**During Class**

Document class activities and your reactions to discussion of experiences/readings with peers and class in writing.

**Grading Criteria**

|  |  |  |
| --- | --- | --- |
|  | **Points**  **Possible** | **Points**  **Earned** |
| Your notebook has a complete table of contents that includes entry titles and refers to page numbers | 10 |  |
| Each new entry page includes a date and is labeled. Each page is numbered. | 10 |  |
| Graphic Organizer is completed for each reading (2 points per reading) | 30 |  |
| The work shows in-depth reflection throughout the learning process. | 10 |  |
| The use of color and labeled diagrams enhance understanding. | 10 |  |
| Notebook is organized and professional | 5 |  |
| **Total points** | 75 |  |

**Science Box – 75 points**

**TK20 Common Assignment**

You will develop a science kit that contains a set of materials and instructions for a single activity. The activity should be intended as an individualized or small group experience that is related to a current topic of study or reinforces a recent topic. The kit should be planned in such a way that children can retrieve it from a nearby shelf or learning center, return to their seats, and complete the activity without additional help or the children can take the activity home to complete after school. The activity can be highly structured or more of an open inquiry.

All materials should fit in a box – shoebox size works well. Please decorate your bag creatively. Each science box will be tested in class as part of group work.

Prepare a “Student Page” and a “Teacher Page” using the following templates as guides. Add clipart that enhances your topic & will engage students/teachers.

Science Box – Student Page

Title of Activity

Grade Level

Standards

(Provide one or more GLE/SPI/Checks for understanding that tie to your activity.)

Task Objective

(What do you want students to be able to understand, know, or be able to do as a result of completing the activity?)

Materials Needed

(Provide a list; Keep in mind that these materials should be safe to take home on the bus if needed)

Procedures

(Number the steps. Write them so that a student at the grade level for which you are designing the activity could follow them. State what students should record in their interactive notebooks. For example- use a table to record observations. Provide scaffolding as needed such as an outline of a table. The idea is to engage your students & encourage accountability of learning.)

Academic Vocabulary

(Provide an activity to help students process and show understanding of academic vocabulary used in this activity, such as a graphic organizer, visual, or model. This activity could be introduced at the beginning, used during the hands-on activity, and/or used at the end. This could be embedded as part of your FACT – see below.)

Assessment

(Select and create an assessment tool using a *Formative Assessment Classroom Technique* (FACT) that students should be able to respond to following completion of the activity. Refer to the task objective related to the standards you selected to design your FACT. Use common misconceptions students have regarding your topic as well.) Select a FACT in which you create a template for students to complete).

Clean-up

(How do you want your students to leave the activity when completed?)

Science in a Bag – Teacher Page

Title of Activity

Grade Level

Standards (same as on student page)

Task Objective (same as on student page)

Explanation

(Explain the science behind the activity in a paragraph or two. Additionally explain how the activity should work.)

Academic Vocabulary

(List & define the essential academic vocabulary for this activity and your rationale for your choice of activity using the vocabulary.)

Common Misconceptions

(What are common misconceptions regarding this topic?)

Real World Connection

(This is different from the explanation. Provide a real world example of how the science behind the activity is used or observed.)

Connections Across the Curriculum

(Include at least 3 ideas of how the bag could be integrated across the curriculum (i.e., math, social studies, language arts, music, art) with standards referenced.)

References

(These include references for the activity, content understanding, etc. You can select your activity from classroom resource books, NSTA resources, the internet, or other sources. Be sure to include references for your sources.)

Grading Criteria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Criteria | 0 | 1 points | 2 points | 3 points | Points |
| Standards & Task Objective |  | Activity and chosen standards lack alignment. Activity lacks adherence to the objective(s). | Activity and chosen standards are somewhat aligned. Activity adheres somewhat to the objective(s). Activity is motivating & enhances critical thinking. | Activity and chosen standards are clearly aligned. Lesson clearly adheres to the objective(s). Activity is motivating, enhances critical thinking, & is likely to encourage students to further investigate the science concept(s). |  |
| Materials and Preparation |  | Candidate not prepared with directions sheets and/or materials needed. | Candidate prepared with direction sheets and most of the materials needed in a container. | Candidate prepared with direction sheets and all of the materials needed in a container. Container and handouts are decorated attractively. |  |
| Activity Directions |  | Directions for student activity are unclear and would be difficult for another teacher or student to follow. No directions were provided to document work in the interactive notebook. Assessment questions were limited/absent or would not be possible to answer as a result of completing the activity. No information was included regarding how to clean up the activity. | Directions for student activity are clear; however, more details would be needed in order for another teacher or student to complete the activity on his/her own. Directions were provided to document work in the interactive notebook; however, some additional scaffolding should be provided for student success. Most assessment questions would be possible to answer as a result of completing the activity. Information was included regarding how to clean up the activity. | Directions for student activity are well written for another teacher or students to follow. Directions were provided to document work in the interactive notebook including appropriate scaffolding. Assessment questions are included that would be possible to answer as a result of completing the activity (avoids yes/no questions). Information was included regarding how to clean up the activity. |  |
| Candidate Content and Pedagogical Knowledge |  | Candidate does not demonstrate accurate understanding of science concepts, misconceptions, and/or real-world connections. No supports are used to explain concepts and academic language/vocabulary. | Candidate demonstrates partial understanding of science concepts including misconceptions and real-world connections.  Candidate uses some models, graphic organizers, and/or other visuals to explain or help students interpret the concepts and support academic language/vocabulary but does not use them effectively. | Candidate demonstrates understanding of the science concepts including misconceptions and real-world connections and can explain the concepts in his/her own words in a way that is developmentally appropriate for target students.  Candidate uses models, graphic organizers, and/or other visuals to explain or help students interpret the concepts and support academic language/vocabulary as needed. |  |
| Professional Presence |  | Numerous spelling and grammar/mechanics errors.  Poor teacher presence (if demonstration is used) | Minor Spelling and/or grammar/mechanics errors  Candidate models adequate enthusiasm & teacher voice (if demonstration is used) | Accurate spelling and grammar/mechanics.  Models enthusiasm and excellent teacher voice (if demonstration is used) |  |
| References |  | References are not included for the activity or the information provided for the teacher page. | Some references are included but not for each of the following: activity, explanation, common misconceptions, and real-world connection. Exact URL is provided. | References are included and labeled for each of the following: the activity, explanation, common misconceptions, and real-world connection. Exact URL is provided. |  |
|  | Total Score \*4=72. Can earn up to 3 more points from peer evaluations. | | | Total Score | /18 |

**Science Box Group Evaluation**

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

On a scale of 1-10 (10 best) rate the following:

* Ability to understand and follow student directions \_\_\_\_
* Directions are in kid-friendly terms for assigned grade level \_\_\_\_
* Ability to complete the task with the materials provided \_\_\_\_

Strengths:

Things to Improve:

Other Comments:

**NSTA Learning center – 25 points**

The *National Science Teacher’s Association* (NSTA) is the host of the *Learning Center* that provides self-directed professional development including online journal articles, simulations, videos, and more. Many in-service teachers use the *Learning Center* in order to improve their content knowledge (CK) and pedagogical content knowledge (PCK). This is an excellent tool for pre-service teachers at any grade level to become familiar with prior to entering the classroom. In addition to improving your science CK and science PCK, these tools can help you prepare for your content PRAXIS exam.

**Assignment**: Use the PD Indexer to select three different content areas - one for Earth/Space, one for Life, and one for Physical Science. Discuss your 3 selected content areas with Dr. Suters prior to getting started. Diagnose your performance in each of these content areas by responding to the 10-question assessment.

Select one of the three content areas to explore further by completing a *SciPack* aligned with the topic. *SciPacks* cost $14.39 for members and $17.99 for nonmembers and take approximately 10 hours to complete. *SciPacks* are self-directed online learning experiences for teachers to enhance their understanding of a particular scientific concept and its related pedagogical implications for student learning. Unlimited expert content help via email and a final assessment both facilitate and document teacher learning.

Your experiences with your selected *SciPack* will be used to direct other assignments in this course, including the Inquiry Project, Paired Text Set, and 5E Inquiry Lesson Plan and Demo.

You will be given time each week to work on your *SciPack* in class; however, a significant portion will need to be completed out of class.

How to get started? Visit the website:

<http://learningcenter.nsta.org/>

Complete the registration from & enter your first name, last name, and email address to secure a free account. You do not have to be a member of NSTA to join; however, you do have more benefits and more free items if you do join. Membership is $35 for students & new teachers.

**Grading Criteria**

|  |  |  |
| --- | --- | --- |
|  | **Points**  **Possible** | **Points**  **Earned** |
| Select three content areas and complete diagnostic assessments by 2/24. | 5 |  |
| Purchase and complete *SciPack* modules for one selected content area by 3/30. | 15 |  |
| Complete Final Assessment with at least a 70% or better by 3/30. | 5 |  |
| **Total points** | 25 |  |

**3D Modeling – Engineering Design – 50 points**

*Requirements and more information regarding this assignment will be shared in class and on the wiki*

**Inquiry project – 75 points**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

Assignment: Complete an extended inquiry project.

Purpose: Teachers often teach in the manner in which they have learned. Many prospective and practicing teachers have not had experiences learning by inquiry.

Where to Start – the standards, of course! Locate a standard or set of standards at a particular grade level.

Popular study choices:

*Life Science*: Mealworms or pillbugs

*Earth/Space Science*: Moon cycle - daily observation + eclipses; rocks & minerals (types & cycle)

*Physical Science*: Magnetism & electricity; simple machines (use of KNEX); light, sound; Vernier LabQuest2 or Go! Probes

Develop an inquiry plan to study the chosen topic using the following outline. You will have a “Project Page” to work with on the Science Methods Wiki to document & post work throughout the project. Most of your inquiry work will be documented in your Interactive Notebooks.

Create the following pages as part of your Project wiki:

1. Standards
2. Resources for Teaching
3. Assessments

Day 1 – Select topic. March 2

* Interactive Notebook:
  + Design an Intro page for your inquiry.
  + Follow with 2 pages labeled as “AHA Connections” prior to pages on which your record your experimentation. Develop a guiding question(s) for your inquiry. You will be adding “lines of evidence” that can be written directly on the pages or added on post-it notes at the conclusion of your inquiry.
  + Prepare a concept map about what you know currently about your selected topic on the next page of your IN. Be as specific as possible with your map. Create your map with your current knowledge. Do not reference other materials at this point. You should draw your map by hand or by using a concept mapping Web 2.0 tool (print to add to your IN) such at <https://bubbl.us/> *Include a paragraph about your previous experience and comfort level with the topic as an additional node on your map*. Use a common color throughout your map to show your understanding “prior” to the project. You will revisit this tool and add to it after you have completed the project – you will need to use a different color for your “post” understanding. Add labels to the map to show what color represents pre and post understanding.
  + Add a Questions page to your project wiki. Create a list of *testable* and *researchable* questions that you would like to discover the answers to regarding your topic. Create at least 5 testable and 5 researchable questions. (*It will be helpful to select your standards first – see next bullet).*
* “Standards” page of your project wiki – select a grade level and add corresponding GLE(s), check for understanding, and spi(s) for science. Add content standards as well as applicable embedded inquiry and embedded engineering and technology standards. Add CCSS for Math & ELA that apply as well. You may need to add the math & ELA standards after you have worked with the topic for a while. Copy and paste these standards to a document and print to add to the next page of your IN.
* SciPack - Begin completing the associated *SciPack* aligned with your inquiry topic. Include at least a page documenting what you learn on the next page of your IN. Document the source(s) for your information from the *SciPack* and the date you add information (*Continue to do this throughout the inquiry*).

Any items not completed in class on Day 1 should be completed out of class prior to Day 2. Continue to work on your *SciPack* out of class – you should complete at least 2.5 hours total prior to Day 2.

Day 2 March 16

* Select at least one of the testable and one of the researchable questions for your topic and bring materials to begin your inquiry in class. Document your work in class in your interactive notebook. Be sure to write specific details regarding how you design your experiment and record results. Complete multiple trials, collect data over time, and draw sketches/diagrams or take pictures/print when possible. Include graphs and charts. Include your plans, sketches, pictures, and experimental data & findings in your IN. Dr. Suters will share a few templates you can use to document your inquiry or you can locate some on your own.
* Select **3 websites, 3 tradebooks, and 3 lesson plans** about the topic and include them on the “Resources for Teaching” project page. Include a direct link to online websites and lesson plans. These should be included directly on your page – not uploaded as a file. Each resource should include a 1-2 sentence annotation describing the resource. Include bibliographic information and a picture of each tradebook as well.
* Continue work on the *SciPack* and add at least one page of notes to your IN. Complete at least 2.5 hours on the *SciPack* prior to Day 3.

Any items not completed in class on Day 2 should be completed out of class prior to Day 3.

Day 3 March 23

* Continue data collection & analysis and document in your IN. Work with the same question(s) from day 2 or new questions.
* **Assessments** (upload to “Assessments” project wiki page)
  + Locate 5 standardized test items that can be used with your topic. Instructions will be given in class.
  + Prepare two FACTs (these need to be original creations – no KWL charts – check with Dr. Suters for approval on the 2 you select to create)
* Continue work on the *SciPack* and add at least one page of notes to your IN. Complete at least 2.5 hours on the *SciPack* prior to Day 4.

Any items not completed in class on Day 3 should be completed out of class prior to Day 4.

Day 4 March 30

* Finalize data collection & analysis in your IN. Be sure to have graphs, diagrams, and photographs.
* Continue work on the *SciPack* and add at least one page of notes to your IN. Complete the rest of your *SciPack* prior to the next class.

Day 5 April 6

* Revisit your **concept map** that you completed at the beginning of your study and add ideas that you have learned as a direct result of your inquiry regarding your topic. Correct any areas that are misconceptions. Include directly on your 1st map (using a different color (use a key to distinguish pre & post). If using an electronic format for your map – reprint and tape in your IN as a liftup flap over the original map.
* Interactive Notebook: Fill in your **AHA Connections** pages by including lines of evidence from your inquiry pertaining to your guiding question(s). After you have completed the AHA Connections pages write an **AHA Thesis** – one paragraph summary (or more if you want) that compiles/summarizes the lines of evidence that you included on your AHA Connections pages.  This should be completed on the last page of your inquiry project pages in your interactive notebook. Complete at least one **Claim Evidence Reasoning (CER) statement** regarding your inquiry project and include it on the same page or next page after your AHA thesis.

**Grading Criteria**

|  |  |  |
| --- | --- | --- |
|  | **Points Possible** | **Points Earned** |
| Pre-assessment concept map (Individual) | 5 |  |
| Standards selection alignment – includes applicable CCSS math and ELA (Group Selected) | 5 |  |
| Background Knowledge for Teacher (Individual information gained from the SciPack) | 10 |  |
| Questions – list of 5 testable and 5 researchable (Group created) | 2.5 |  |
| Experimentation, data collection, and analysis (Can be collected as a group; however, each of you should have entries in your IN) | 15 |  |
| Resources for teaching: websites, tradebooks, lesson plans  (Individual) | 10 |  |
| Assessment - 5 Standardized test items, 2 FACTs (Individual) | 7.5 |  |
| Post-assessment concept map (Individual) | 5 |  |
| Interactive Notebook: thorough documentation of inquiry activities including AHA Connections, AHA Thesis, CER Statement (Can be discussed as a group; however, each of you should make entries into your own IN) | 15 |  |
| **Total Points** | 75 |  |

**5E Lesson Plan & Demonstration Lesson – 75 points**

**Purpose:** To become familiar with science curriculum standards and to experience teaching key concepts using embedded inquiry. You will be expected to incorporate hands-on activities and children’s literature. This activity is an extension of your inquiry project & you will write your plan using the resources and ideas that you collected during your actual inquiry.

Your professor will model how you will be expected to lead the class with a demonstration inquiry lesson. You will be required to:

* Write a lesson plan using the template provided
* Select a children’s tradebook to incorporate with the lesson (can be from your paired text set)
* Use at least 2 FACTs to align with the lesson. (can be from the set your group created during the inquiry)
* Design an activity to address the “Language Demands” of the lesson.

You will be provided with a lesson plan format to use as a guide to prepare your 5E lesson plan. You can adapt lesson plans that you find in classroom resource books or online for this plan as long as you use the required format and reference your sources.

You will have approximately 90 minutes to teach your plan to our class. Be sure to literally practice your activities prior to teaching them to the class. Make notes to refer to as you teach to keep you on track and within your time limit. You will not have time to teach your entire lesson as written; however, you should be prepared with the supplies and include samples of work that you completed as you practiced on your own.

**Science Lesson Plan Rubric – Written Plan**

**Name:**

**Topic:**

|  |  |  |
| --- | --- | --- |
| **Portion of Plan** | **Feedback** | **Points** |
| Title Section |  | /1 |
| Standards |  | /2 |
| Central Focus |  | /3 |
| Essential Understandings |  | /3 |
| Essential Questions |  | /3 |
| Lesson Objectives |  | /3 |
| **Language Demands** | | |
| Language Function |  | /2 |
| Key Learning Task |  | /2 |
| Content/Academic Vocabulary |  | /3 |
| Discourse |  | /2 |
| Syntax |  | /2 |
| Supports |  | /3 |
| **Materials/Resources** | | |
| For Teacher |  | /1 |
| For Students |  | /1 |
| References |  | /2 |
| Adaptations to Meet Individual Needs |  | /3 |
| Management Safety Issues |  | /3 |
| **Rational Theoretical Reasoning** | | |
| Rationale |  | /3 |
| Theory |  | /3 |
| Common Misconceptions or Difficulties |  | /3 |
| **Assessment/Evaluation Criteria** | | |
| Formative Assessment |  | /3 |
| Summative Assessment |  | /3 |
| Academic Feedback |  | /3 |
| **Instruction** | | |
| Set/Hook/Motivator |  | /6 |
| Instructional Procedures |  | /6 |
| Closure |  | /6 |
| **Total Score** | | /100 |
| Total divided by 2. Score out of 50 points for Written Plan | | |

**Lesson Plan Rubric – Presentation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Criteria** | **1** | | **3** | **5** | | **Points Earned** |
| **Materials, Media, and Student Participation** | Demonstration lacks the use of materials such as diagrams, drawings, and manipulatives/ lacks the use of technology/ lacks opportunity for engagement or participation from the audience/ lacks modeling for the audience | Acceptable use of materials such as diagrams, drawings, and manipulatives / adequate use of technology/ provides opportunity for adequate engagement or participation from the audience/ includes adequate modeling for the audience | | | Excellent and engaging use of materials such as diagrams, drawings, and manipulatives / exceptional integration of technology/ provides opportunity for exceptional engagement or participation from the audience/ excellent modeling for the audience |  |
| **Content Knowledge** | Student lacks clear understanding of science concepts/ may have difficulty communicating ideas. | Student conveys some understanding of science concepts/ adequately communicates and explains concepts. | | | Student demonstrates exceptional understanding of science concepts and explains them in a manner easily understood by all. |  |
| **Pedagogy Knowledge** | Demonstration lacks direction, purpose, and development. Candidate demonstrates limited skill in modeling and implementing the activities and/or in planning for questioning and grouping of students. Demonstration lacks an emphasis on conceptual understanding. | Demonstration has adequate direction, purpose, and development. Candidate demonstrates adequate skill in modeling and implementing the activities and/or in planning for questioning and grouping of students. Demonstration adequately emphasizes conceptual understanding. | | | Demonstration has clear direction, purpose, and development. Candidate demonstrates exceptional skill in implementing instructional strategies and/or in planning for questioning and grouping of students. Demonstration strongly emphasizes conceptual understanding. |  |
| **Overall presentation** | Candidate is disorganized. Time management is lacking. Demonstration lacks a smooth flow. Voice projection is poor and little preparation is evident. Enthusiasm is lacking. Severe grammatical errors are present. | Candidate is somewhat organized and adequately manages time. Demonstration flows relatively smoothly. The candidate communicates ideas with proper voice projection. Candidate demonstrates adequate preparation and delivery. Few grammatical errors are present. | | | The candidate demonstrates excellent preparation, is exceptionally organized, and manages time well. The candidate communicates ideas with enthusiasm, proper voice projection, appropriate language, and clear delivery. |  |
| **Materials and Handouts Setup and Cleanup** | Not prepared with handouts and materials prior to class. | Candidate prepares some but not all handouts and materials as needed prior to class. | | | Candidate has all handouts and materials prepared prior to class and ready to distribute. |  |
|  |  |  | | | Total Score | **/25** |

**Paired Text Set – 25 points**

For the purposes of this assignment, a paired text set is a fiction and non-fiction book that can be used together to teach a particular content area.

For this project, you will need to reference the following CCSS – ELA standards for your grade level

<http://www.corestandards.org/ELA-Literacy>

Reading: Literature (grades K-6)

Reading: Informational Text (grades K-6)

Writing (K-6)

Speaking and Listening (K-6)

CC – ELA Science and Technical Subjects Grades 6-8 (*6th grade should use these*)

<http://www.corestandards.org/ELA-Literacy/RST/6-8/>

***Assignment***

*Paired Text Set – use of a non-fiction/informational text paired with a piece of fictional literature on the same topic –* **use your inquiry topic***. Include the Lexile level of each text.*

You will need to locate a copy of your books to bring to class – use your public library or order the books.

Describe an activity that you can complete with your class using your selected books. Refer to the *Picture Perfect Science* Book Packet available on the wiki. Select relevant science and CCSS-ELA standards that apply to your activity. Include text-dependent question prompts and a FACT that can be used to assess student learning by asking them to use evidence from each book. There are many ideas for teaching with children’s books that can be found online – use them!

**Grading Criteria Paired Text Set**

|  |  |  |
| --- | --- | --- |
|  | **Points Possible** | **Points Earned** |
| Paper includes the following:   * List of standards addressed – science and CCSS-ELA * Lexile Level of each book * Bibliographic information & Graphic of each book cover is included in the paper. | 5 |  |
| Description of a creative activity for students to complete using both texts. | 5 |  |
| Text-Dependent question prompts are included to help students process the information & address selected standards by citing evidence from both texts. | 5 |  |
| Creation of a FACT to assess student learning and help students process content using evidence from each book. | 5 |  |
| **Spelling, grammar and mechanics** | 5 |  |
| **Total** | 25 |  |

*Use the template below to help you get started. The information in the template is required at a minimum – you can include additional information if desired.*

**PAIRED TEXT SET**

**Your Title**

**Grade Level:**

**Science Standards:**

**Literacy Standards:**

|  |  |
| --- | --- |
| **Paste Graphic of Non-Fiction Text** | Title  Author  Publisher & Date  Lexile Level  Brief Synopsis |
| **Paste Graphic of Fiction Text** | Title  Author  Publisher & Date  Lexile Level  Brief Synopsis |

**Activity Objective:**

**Materials:**

**Activity Description:**

(*Align your selected standards above by number with the part of the activity to which it aligns.)*

**References:**

**Include any activity handouts and your FACT on the following pages or include as separate files.**

**Project CENTS Workshop Completion**

**50 points – PLT & WILD**

CENTS: Conservation Education Now for Tennessee Students

Environmental Education in Tennessee

<http://eeintennessee.org/net/content/go.aspx?noredirect=1&s=43193.0.0.37935>

|  |  |  |
| --- | --- | --- |
| **:::::Documents:Project CENTS:PLT, WET WorkshopsCD:PLT CD:PLT Facilitators:label.jpeg** |  |  |

Dr. Suters will facilitate a workshop on Tuesday, September 29 at the Knoxville Zoo for 2 of the Project CENTS programs: Project Learning Tree & Project WILD. As part of the workshop you will receive the curriculum guides free of charge. These guides are excellent materials for preparing you to integrate environmental education as part of TN state curriculum across content areas. A 6-hour workshop is required to provide one of the manuals but 2 manuals can be distributed in an 8-hour workshop. We will spend 7 hours in the “field” and 1 hour in our classroom with follow-up activities to earn the books.

Date: Tuesday, March 29 Place: Knoxville Zoo Time: 9:00-4:00

Cost: $10

What to bring: sack lunch or money to buy lunch, plenty of water or other drinks, clipboard (optional), paper, pen or pencil, PLT & WILD books (+ backpack or bag to carry them)

*Wear comfortable shoes and clothing for walking.*

After the workshop include the following in your interactive notebook:

* Select one activity from the PLT or WILD book that can be applied to both science and social studies that we did not complete during the workshop. List the activity, book, page #s, etc. for the activity that you select. Choose a grade level and list state science and social studies standards that apply to this activity as well as CCSS-ELA if applicable.
* Complete the activity on your own & provide evidence of this completion (i.e., an artifact you create, notes/sketches in your interactive notebook)
* Write a one-page reflection in your IN about your experiences with PLT & WILD & how you plan to use them with students.

**PLT/WILD Workshop Grading Criteria**

|  |  |  |
| --- | --- | --- |
|  | **Points Possible** | **Points**  **Earned** |
| Selection of an activity that can be applied to both social studies and science. Provide evidence that you have completed the activity.  The map is a good representation for your activity but it will help to write some information to include with your map as well – how will students use the map on their hike? | 20 | 10 |
| Include documentation of science, social studies, and CCSS-ELA standards that apply to your selected activity. | 15 | 15 |
| One-page reflection of PLT & WILD is written in your Interactive Notebook by April 6. Describes your experiences and how you plan to use them with students. | 10 | 10 |
| Assignment & Reflection are free of errors (grammar and spelling). | 5 | 5 |
| **Total Points** | 50 |  |